

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

A16WE  
Revision 32  
BOEING  
737-100 Series  
737-200 Series  
737-200C Series  
737-300 Series  
737-400 Series  
737-500 Series  
737-700 Series  
737-800 Series  
737-600 Series  
737-700C Series  
737-900 Series  
April 17, 2001

**TYPE CERTIFICATE DATA SHEET A16WE**

This data sheet, which is part of Type Certificate No. A16WE, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: THE BOEING COMPANY  
PO Box 3707  
Seattle, WA 98124

**I - Model 737-100 (Approved December 15, 1967) Transport Aircraft**

Engines: 2 Pratt and Whitney Turbofan Engines JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, and JT8D-15; refer to the FAA Approved Airplane Flight Manual for aircraft engine and engine intermix eligibility.

Fuel: See NOTE 4.

Engine Ratings:	Takeoff static thrust standard day, sea level conditions (5 min.) lb.	Maximum continuous static thrust, standard day, sea level conditions lb.
JT8D-7, -7A, -7B	14,000	12,600
JT8D-9, -9A	14,500	12,600
JT8D-15	15,500	13,700

For engine operating limits see engine TC Data Sheet No. E2EA or the FAA Approved Airplane Flight Manual.

Thrust Setting: The appropriate EPR thrust setting curve (EPR or PT 7), in the FAA Approved Airplane Flight Manual of AFM Appendices must be used for control of engine thrust.

Airspeed Limits: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

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**II. Model 737-200 (Approved December 21, 1967) Transport Aircraft**

<u>Model:</u>	<u>Eligible Serial Numbers:</u>	
737-112	19768-19772	
737-130	19013-19017, 19018 -19033, 19794, 19437	
737-159	19679, 19680	
Engines:	2 Pratt and Whitney Turbofan Engines JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-15, JT8D-15A, JT8D-17, and JT8D-17A; Refer to the FAA Approved Airplane Flight Manual for aircraft engine and engine intermix eligibility.	
Engine Ratings:	Takeoff static thrust, standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lbs.
	JT8D-7, -7A, -7B	14,000
	JT8D-9, -9A	14,500
	JT8D-15, -15A	15,500
	JT8D-17, -17A	16,000
Thrust Settings:	The appropriate thrust setting curve (EPR or Pt7), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.	
Airspeed Limits:	See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.	
C.G. Range:	See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.	
Maximum Weights:	See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.	
<u>Model:</u>	<u>Eligible Serial Numbers:</u>	
737-201	19418-19423, 20211-20216, 21665-21667, 21815-21818, 22018, 22273-22275, 22352-22355, 22443-22445, 22751-22758, 22795-22799, 22806, 22866-22869, 22961, 22962	
737-204	19707-19712, 20236, 20632, 20633, 20806-20808, 21335, 21336, 21693, 21694, 22057-22059, 22364, 22365, 22638-22640, 22966, 22967	
737-205	19408, 19409, 20412, 20711, 21184, 21219, 21445, 21729, 21765, 22022, 23464-23469	
737-209	23795, 23796, 23913, 24197	
737-210	21820	
737-212	20492, 20521	
737-214	19681, 19682, 19920, 19921, 20155-20160, 20368	
737-217	19884-19888, 20196, 20197, 21716-21718, 22255-22260, 22341, 22342, 22658, 22659, 22728, 22729, 22864, 22865	
737-219	19929-19931, 20344, 21130, 21131, 21645, 22088, 22657, 23470-23475	
737-222	19039-19078, 19547-19556, 19758, 19932-19956	
737-228	23000-23011, 23349, 23503, 23504, 23792, 23793	
737-229	20907-20912, 21135-21137, 21176, 21177, 21596, 21839, 21840	
737-230	22113-22143, 22402, 22634-22637, 23153-23158	
737-232	23073-23105	
737-236	21790-21808, 22026-22034, 23159-23172, 23225, 23226	
737-241	21000-21009	
737-242	21186, 22074, 22075	
737-244	19707, 19708, 20229, 20329-20331, 22580-22591, 22828	
737-247	19598-19617, 20125-20134, 23184-23189, 23516-23521, 23602-23609	
737-248	19424, 19425, 20221-20223, 21714, 21715	
737-258	22856, 22857	
737-260	23914, 23915	
737-266	21192-21196, 21227, 21191	
737-268	20576-20578, 20882, 20883, 21275-21277, 21280-21283, 21360-21362, 21653, 21654, 22050	
737-269	21206	
737-275	19742, 20142, 20588, 20670, 20785, 20922, 20958, 20959, 21115, 21639, 21712, 21713, 21819, 22086, 22087, 22159, 22264-22266, 22807, 22873, 22874, 23283-23285	

**II. 737-200 (Cont'd)**

737-277	22645-22656
737-281	20226, 20227, 20276, 20277, 20413, 20414, 20449-20452, 20506-20508, 20561-20563, 21766-21771
737-282	23041-23046
737-284	21224, 21225, 21301, 21302, 21500, 21501, 22300, 22301, 22338, 22339, 22343, 22400, 22401
737-286	20498, 20499, 21317
737-287	20403-20406, 20523, 20537, 20768, 20964-20966
737-291	20361-20365, 21069, 21508, 21509, 21544-21546, 21640-21642, 21747-21751, 21980, 21981, 22089, 22383, 22384, 22399, 22456, 22457, 22741-22744, 23023, 23024
737-293	19306-19309, 19713, 19714, 20334, 20335,
737-296	22276, 22277, 22516, 22398
737-297	20209, 20210, 20242, 21739, 21740, 22051, 22426, 22629-22631
737-25A	23789-23791
737-25C	24236
737-27A	23794
737-2A1	20092-20096, 20589, 20777-20779, 20967-20971, 21094, 21095, 21597-21599, 22602
737-2A3	20299, 20300, 22737-22739
737-2A6	20194, 20195, 20412
737-2A8	20480-20486, 20960-20963, 21163, 21164, 21496-21498, 22280-22286, 22860-22863, 23036, 23037
737-2A9	20956
737-2B1	20280, 20281, 20786
737-2B2	20231, 20680
737-2B6	21214-21216, 22767
737-2B7	22878-22892, 23114-23116, 23131-23135
737-2C0	20070-20074
737-2C3	21012-21017
737-2C9	21443, 21444
737-2D6	20544, 20759, 20884, 21063-21065, 21211, 21212, 21285, 21286, 22766
737-2E1	20396, 20397, 20681, 20776, 20976, 21112
737-2E3	22703, 22792
737-2E7	22875, 22876
737-2F9	20671, 20672, 22771-22774, 22985, 22986
737-2H3	21973, 22624, 22625
737-2H4	20336, 20345, 20369, 20925, 21117, 21262, 21337-21340, 21447, 21448, 21533-21535, 21593, 21721, 21722, 21811, 21812, 21970, 22060-22062, 22356-22358, 22673-22675, 22730-22732, 22826, 22827, 22903-22905, 22963-22965, 23053-23055, 23108-23110, 23249
737-2H5	20453, 20454
737-2H6	20582-20584, 20586, 20587, 20631, 20926, 21732, 22620, 23320, 23849
737-2J8	22859
737-2K2	21397, 22025, 22296, 22906
737-2K3	23912, 24139
737-2K5	22596-22601
737-2K6	20957, 22340
737-2K9	22415, 22416, 22504, 22505, 23386, 23404, 23405
737-2L7	21616
737-2L9	21278, 21279, 21528, 21685, 21686, 22070-22072, 22406-22408, 22733-22735
737-2M2	21172, 21723, 22626, 22775, 22776, 23220, 23351
737-2M6	20913, 21138
737-2M8	21231, 21736, 21955, 22090
737-2M9	21236
737-2N1	21167
737-2N3	21165, 21166
737-2N7	21226
737-2N8	21296
737-2N0	23677-23679
737-2P5	21440, 21810, 22267, 22667, 23113
737-2P6	21355-21359, 21612, 21613, 21677, 21733, 21734
737-2Q3	21476-21478, 22367, 22736, 23117, 23481, 24103

**II. 737-200 (Cont'd)**

737-2Q8	21518, 21687, 21735, 21960, 22453, 22760, 23148
737-2Q9	21719, 21720, 21975, 21976
737-2S3	21774-21776, 22278, 22279, 22633, 22660
737-2S9	21957
737-2T2	22793
737-2T4	22054, 22055, 22368-22371, 22529, 22697-22701, 22800-22804, 23272-23274, 23443-23447
737-2T5	22023, 22024, 22395-22397, 22632, 22979
737-2T7	22761, 22762
737-2U4	22161, 22576
737-2U9	22575
737-2V2	22607
737-2V5	22531
737-2V6	22431
737-2W8	22628
737-2X2	22679
737-2X9	22777-22779
737-2Y5	23038-23040, 23847, 23848, 24031
737-2Z6	23059
737-T43A	20685-20703

**III. Model 737-200C (Approved October 29, 1968) Transport Aircraft**

Engines: 2 Pratt and Whitney Turbofan Engines JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-15, JT8D-15A, JT8D-17, and JT8D-17A; Refer to the FAA Approved Airplane Flight Manual for aircraft engine and engine intermix eligibility.

Fuel: See NOTE 4.

Engine Ratings:	Takeoff static thrust, standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb.
JT8D-7, -7A, -7B	14,000	12,600
JT8D9D-9, -9A	14,500	12,600
JT8D-15, -15A	15,500	13,750
JT8D-17, -17A	16,000	15,200

For engine operating limits see engine TC Data Sheet No. E2EA or the FAA Approved Airplane Flight Manual.

Thrust Settings: The appropriate thrust setting curve (EPR or Pt7), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

<u>Model:</u>	<u>Eligible Serial Numbers:</u>
737-202C	19426
737-204C	20282, 20389
737-205C	20458
737-210C	19594, 20138, 20440, 20917, 21066, 21067, 21821, 21822
737-219C	22994

**III. 737-200C (Cont'd)**

737-229C	20914-20916, 21139, 21738
737-230C	20253-20258
737-242C	19847, 19848, 20455, 20496, 21728, 22877
737-248C	20218-20220, 21011
737-268C	20574, 20575
737-270C	20892, 20893, 21183
737-275C	19743, 21116, 21294, 22160, 22618
737-282C	23051
737-286C	20500, 20740
737-287C	20407, 20408
737-290C	22577, 22578, 23136
737-298C	20793-20795
737-2A1C	21187, 21188
737-2A8C	22473
737-2A9C	20205, 20206
737-2B1C	20536
737-2B6C	23049, 23050
737-2D6C	20650, 20758, 21287
737-2H3C	21974
737-2H4C	20346
737-2H6C	21109
737-2H7C	20590, 20591, 23386
737-2J8C	21169, 21170
737-2K2C	20836, 20943, 20944
737-2L7C	21073
737-2M2C	21173
737-2M6C	21809
737-2N9C	21499
737-2Q2C	21467
737-2Q5C	21538
737-2Q8C	21959
737-2R4C	21763, 23129, 23130
737-2R6C	22627
737-2R8C	21710, 21711
737-2S2C	21926-21929
737-2S5C	22148
737-2T2C	22056
737-2T4C	23065, 23066
737-2X6C	23121-23124, 23292

**IV. Model 737-300 (Approved November 14, 1984) Transport Aircraft**

Engines:	2 CFM-56-3-B1, CFM-56-3B-2 or CFM-56-3C-1 Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.	
Fuel:	Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, P-5, and JP-8 are acceptable alternatives. Consult flight manual for additive use.	

Engine Ratings:	Takeoff static thrust, standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb.
CFM 56-3C-1	22,100*	20,500*
CFM 56-3-B1	20,100	18,900
CFM 56-3B-2	22,100	20,500

\*CFM 56-3C-1 Throttle limiter to limit full throttle thrust equivalent to 22,100

**737-300 (Cont'd)**

For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

Thrust Settings: The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)

C.G. Range: For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.  
See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

<u>Model:</u>	<u>Eligible Serial Numbers:</u>
737-301	23228-23237, 23257-23261, 23510-23515, 23550-23560, 23739-23743, 23930-23937
737-306	23537-23546, 24261, 24262, 24404, 27420, 27421, 28719, 28720
737-317	23173-23177
737-319	25606-25609
737-322	23642-23644, 23665-23675, 23947-23957, 24147-24149, 24191-24193, 24228-24230, 24240-24253, 24301, 24319-24321, 24360-24362, 24378, 24379, 24452-24455, 24532-24540, 24637-24642, 24653-24674, 24717-24718
737-329	23771-23775, 24355, 24356
737-330	23522-23531, 23833-23837, 23871-23875, 24280-24284, 24561-24565, 25148, 25149, 25215-25217, 25242, 25359, 25414-25416, 26428-26432, 27903-27905
737-332	25994, 25996, 25998
737-340	23294-23299
737-341	24275-24279, 24935, 24936, 25048-25051, 26852-26857
737-347	23181-23183, 23345-23347, 23440-23442, 23596-23599
737-348	23809, 23810
737-375	23707, 23708, 23808
737-376	23477-23479, 23483-23491, 24295-24298
737-377	23653-23664, 24302-24305
737-382	24364-24366, 24449, 24450, 25161, 25162
737-31B	25895, 25897, 27151, 27272, 27275, 27287, 27288, 27289, 27290, 27343, 27344, 27519, 27520
737-31L	27273, 27276, 27345, 27346
737-31S	29055, 29056, 29057, 29058, 29059, 29060, 29099, 29100, 29116, 29264-29267
737-32Q	29130
737-33A	23625-23636, 23827-23832, 24025-24030, 24092-24098, 24460, 24461, 24789-24791, 25010, 25011, 25032, 25033, 25056, 25057, 25118, 25119, 25138, 25401, 25402, 25426, 25502-25508, 25511, 25603, 25743, 25744, 27267, 27284, 27285, 27452-27459, 27459, 27460, 27462, 27463, 27469, 27907, 27910
737-33R	28868-28871, 28873
737-33S	29072
737-33V	29331-29342, 29341
737-34N	28081, 28082
737-34S	29108, 29109
<u>Model:</u>	<u>Eligible Serial Numbers:</u>
737-35B	23970-23972, 24237, 24238, 24269, 25069
737-35N	28156-28158, 29315, 29316
737-36E	25159, 25256, 25263, 25264, 26315, 26317, 26322, 27626
737-36M	28332, 28333
737-36N	28554-28562, 28563, 28564, 28566-28573, 28586, 28590, 28594, 28596, 28599, 28602, 28606, 28668, 28669, 28670, 28671, 28672, 28673, 28872
737-36Q	28657-28660, 28662, 28664, 28760, 28761, 29140, 29141, 29189, 29326, 29327, 29405, 30333-30335
737-36R	29087, 30102
737-37K	27283, 27335, 27375, 29407, 29408
737-37Q	28537, 28548
737-38B	25124
737-38J	27179-27183, 27395

**737-300 (Cont'd)**

737-39A	23800
737-39K	27274, 27362
737-39M	28898
737-39P	29410, 29411, 20412
737-3A1	28389
737-3A4	23251-23253, 23288-23291, 23505, 23752
737-3B3	24387, 24388, 26850, 26851
737-3B7	22950-22959, 23310-23319, 23376-23385, 23594, 23595, 23699-23706, 23856-23862, 24410-24412, 24478, 24479, 24515, 24516
737-3G7	23218, 23219, 23776-23785, 24008-24012, 24633, 24634, 24710-24712, 25400
737-3H4	22940-22949, 23333-23344, 23414, 23689-23697, 23938-23940, 23959, 23960, 24572, 24888, 24889, 25219, 25250, 25251, 26571-26596, 26600-26602, 27378-27380, 27689-27722, 27926-27936, 27953-27956, 28033-28037, 28329-28331, 28398, 28399, 28400, 28401
737-3H6	27125, 27347
737-3H9	23329, 23330, 23415, 23416, 23714-23716, 24140, 24141
737-3J6	23302, 23303, 25078-25081, 25891, 25892, 25893, 27045, 27128, 27361, 27372, 27518, 27523
737-3K2	23411, 23412, 23738, 23786, 24326-24329, 26318, 27635, 28085
737-3K9	23797, 23798, 24211-24214, 24864, 24869, 25210, 25239, 25787, 25788
737-3L9	23331, 23332, 23717, 23718, 24219-24221, 24569-24571, 25125, 25150, 25360, 25440-26442, 27061, 27336, 27337, 27833, 27834, 27924, 27925
737-3M8	24020-24024, 24376, 24377, 24413, 24414, 25015-25017, 25039-25041, 25070, 25071
737-3Q4	24208-24210
737-3Q8	23254-23256, 23387, 23388, 23401, 23402, 23406, 23506, 23507, 23535, 23766, 24068, 24131, 24132, 24299, 24300, 24403, 24470, 24492, 24698-24702, 24961-24963, 24986, 24987, 24988, 25373, 26282-26286, 26288, 26292-26296, 26301, 26303, 26305, 26307, 26309-26314, 26321, 26325, 26333, 27271, 27286, 27633, 28054, 28200
737-3S3	23712, 23713, 23733, 23734, 23787, 23788, 23811, 24059, 24060, 29244, 29245
737-3T0	23352-23375, 23455-23460, 23569-23593, 23838-23841, 23941-23943
737-3T5	23060-23064
737-3U3	28731, 28732, 28733, 28734, 28735, 28736, 28737, 28738, 28739, 28740, 28741, 28742
737-3U8	28746, 28747, 29088, 29705
737-3W0	23396, 23397, 25090, 27127, 27139, 27522, 28972, 28973, 29068, 29069
737-3Y0	23495-23500, 23684, 23685, 23747-23750, 23812, 23826, 23921-23927, 24462, 24463, 24464, 24465, 24546, 24547, 24676-24681, 24770, 24902, 24905, 24907-24910, 24913, 24914, 24916, 24918, 25172-25174, 25179, 25187, 26068, 26070, 26072, 26082-26084
737-3Y5	25613-25615
737-3Y9	25604
737-3Z0	23448-23451, 25089, 25896, 27046, 27047, 27126, 27138, 27176, 27373, 27374, 27521
737-3Z6	24480
737-3Z8	23152
737-3Z9	23601, 24081

**V. Model 737-400 (Approved September 2, 1988) Transport Category.**

Engines:	2 CFM-56-3C-1 or CFM-56-3B-2 Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.	
Fuel:	Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, JP-5, and JP-8 are acceptable alternatives. Consult flight manual for additive use.	
Engine Ratings:	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lbs.
	CFM-56-3C-1	23,500
	CFM-56-3B-2	22,100
		21,860
		20,500

For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

**V. 737-400 (Cont'd)**

Thrust Settings: The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)

For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

<u>Model:</u>	<u>Eligible Serial Numbers:</u>
737-401	23876-23886, 23984-23992
737-405	24270, 24271, 24643, 24644, 25303, 25348, 25795
737-406	24514, 24529, 24530, 24857, 24858, 24959, 25355, 25412, 25423, 25424, 27232, 27233
737-408	24352, 24353, 24804, 25063
737-429	25226, 25247, 25248, 25729
737-430	27000-27005, 27007
737-436	24052, 24053, 25267, 25304, 25305, 25349, 25350 25407, 25408, 25428, 25839-25843, 25848-25857, 25859, 25860
737-446	27916, 27917, 28087, 28097, 28831, 28832, 28994, 29864
737-448	24474, 24521, 24773, 24866, 25052, 25736
737-476	24430-24446, 28150- 28152
737-484	27149
737-490	27081, 27082, 28885-28887, 28895, 28896, 29270, 29318, 30161
737-497	25663-25666
737-42C	24231, 24232, 24813, 24814
737-42J	27143
737-43Q	28489-28494
737-44P	29914, 29915
737-45D	27156, 27157, 27131, 27256, 27914, 28752, 28753
737-45R	29032-29035
737-45S	28473, 28474, 28476, 28477, 28478
737-46B	24123, 24124, 24573, 25262
737-46J	27171, 27213, 27826, 28038, 28271, 28334, 28867
737-46M	28549, 28550
737-46N	28723
737-46Q	28661, 28663, 28758, 28759, 29000, 29001
737-48E	25764-25767, 25771, 25772, 25773, 25774, 25775, 25776, 26334, 27630, 27632, 28053, 28198
737-49R	28881, 28882
737-4B3	24750, 24751
737-4B6	24807, 24808, 26526, 26529, 26530, 26531, 27678
737-4B7	24548-24560, 24781, 24811, 24812, 24841, 24842, 24862, 24863, 24873, 24874, 24892, 24893, 24933, 24934, 24979, 24980, 24996, 24997, 25020-25024
737-4C9	25429, 26437
737-4D7	24830, 24831, 25321, 26611-26614, 28701, 28702, 28703, 28704
737-4H6	26443, 26444, 26447, 26449, 26451, 26462-26468, 27084, 27096, 27097, 27083, 27085-27087, 27166-27168, 27169, 27170, 27190, 27191, 27352, 26457-26461, 26452, 26555, 27191, 27306, 27353, 27383-27385, 27673, 27674
737-4K5	24125-24130, 24901, 24769, 26316, 27074, 27102, 27830, 27831
737-4L7	26960, 26961
737-4M0	29201-292107
737-4Q3	26603-26606, 27660, 29485, 29487
737-4Q8	24069, 27070, 24234, 24332, 24703-24709, 25095-25114, 25163, 25164, 25168, 25169, 25371, 25372, 25375, 25374, 25376-25378, 25740, 26279, 26280, 26281, 26285, 26289, 26290, 26291, 26298, 26299, 26300, 26302, 26306, 26308, 26320, 26335, 26337, 27628, 28199, 28202
737-4S3	24163-24167, 24795, 24796, 25116, 25134, 25594-25596
737-4U3	25713-25719



**V. 737-400 (Cont'd)**

737-4Y0	23865-23870, 23976-23978, 23980, 23981, 24314, 24344, 24345, 24467-24469, 24493, 24494, 24511-24513, 24519, 24520, 24545, 24682-24689, 24690-24693, 24903, 24904, 24906, 24911, 24912, 24915, 24917, 25177, 25178, 25180, 25181, 25184, 25190, 25261, 26065, 26066, 26069, 26071, 26073, 26074, 26077, 26078, 26081, 26085, 26086, 26088
737-4Z6	27906
737-4Z9	25147, 27094

**VI. Model 737-500 (Approved February 12, 1990) Transport Aircraft**

Engines:	2 CFM-56-3C-1 or CFM-56-3-B1 Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.
Fuel:	Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, JP-5, and JP-8 are acceptable alternatives. Consult flight manual for additive use.

Engine Ratings:	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
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CFM-56-3C-1	20,100 <sup>*</sup>	18,900*
CFM-56-3-B1	20,100	18,900

\*CFM 56-3C-1 throttle limiter to limit full throttle thrust equivalent to 20,100.

For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

Thrust Settings:	The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.
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Airspeed Limits:	VMO/MMO - 340/0.82 (KCAS)
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For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

C.G. Range:	See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.
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Maximum Weights:	See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.
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**Model:****Eligible Serial Numbers:**

737-505	24272-24274, 24645-24652, 24828, 25789-25792, 25797, 26297, 27153, 27155, 26304, 25794, 26336, 26338, 27627, 27631
737-522	25001-25009, 25254, 25255, 25290, 25291, 25381-25388, 26642, 26643, 26645, 26646, 26648, 26649, 26651-26653, 26655, 26656-26659, 26662, 26663, 26667, 26668, 26671, 26672, 26675, 26676, 26679, 26680, 26683, 26684, 26687, 26688, 26690, 26691, 26692, 26695, 26696, 26700, 26703, 26704, 26707, 26739, 26699
737-524	27314-27334, 27526-27535, 27540, 27900, 27901, 26319, 26339, 26340, 28899-28928
737-528	25206, 25227-25230, 25233-25237, 27304, 27305, 27424, 27425, 27426
737-529	25218, 25249, 25418, 25419, 26537, 26538
737-530	24815-24824, 24937-24946, 25243, 25244, 25270-25272, 25309-25311, 25357, 25358
737-548	24878, 24919, 24968, 24989, 25737, 25738, 25739, 26287, 25165
737-566	25051, 25084, 25307, 25352, 26051, 26052
737-5B6	26527, 25317, 25364, 26525, 27679, 27680
737-5C9	26438, 26439
737-5H3	26639, 26640, 27257, 27912
737-5H4	24178-24190, 25153, 25154, 25318, 25319, 25320, 26564-26570
737-5H6	26445, 26446, 26448, 26450, 26454, 26456, 27354-27356
737-5K5	24776, 24926, 24927, 25037, 25062
737-5L9	24778, 24805, 24859, 24928, 25066, 28083, 28084, 28128-28131, 28721, 28722, 28995-28997, 29234, 29235

**VI. Model 737-500** (cont'd)

737-5Q8	25160, 25166, 25167, 26323, 26324, 27634, 28052, 28055, 28201
737-5U3	28726, 28727, 28728, 28729, 28730
737-5Y0	24696, 24897-24900, 25175, 25176, 25182, 25183, 25185, 25186, 25188, 25189, 25191, 25192, 25288, 25289, 26067, 26075, 26097, 26100, 26101, 26104, 26105
737-53A	24754, 24785-24788, 24877, 24878, 24881, 24921, 24922, 24970, 25425
737-53C	24825-24827
737-53S	29073-29075
737-54K	27381, 27430-27435, 27966, 28461, 28462, 28990-28993, 29794, 29795
737-55D	27130, 27368, 27416-27419
737-55S	26539-26543, 28469-28472, 28475
737-56N	28565
737-58E	25767-24769, 29122
737-58N	28866
737-59D	25038, 25065, 24694, 24695, 26421, 26419, 26422, 27268

**DATA PERTINENT TO ALL MODELS EXCEPT 737-700, -800, -600 & -700C:**

Minimum Crew for All Flights: 2 (Pilot and Copilot)

Maximum Passengers: 113 (737-100 Series Airplanes), 124 if compliance with FAR 25.2(b), (c), & (d) at Amendment 25.20 is shown.

119 (737-200/200C Series Airplanes), 136 if compliance with FAR 25.2(b), (c), & (d) is shown.

149 (737-300 Series Airplanes).

188 (737-400 Series Airplanes), limited by FAR 25.803(c)

140 (737-500 Series Airplanes), limited by FAR 25.807(d).

Maximum Baggage Cargo: See appropriate Weight & Balance Manual, Boeing Document No. D6-15066

Fuel & Oil Capacities: See appropriate Weight & Balance Manual, Boeing Document No. D6-15066

Minimum Required Fuel: See appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Operating

Altitude: 35,000 ft. 37,000 ft. if authorized by Flight Manual. (737-100 and 737-200 Series Airplanes).  
37,000 ft. (737-300, 737-400, and 737-500 Series Airplanes)

Datum: The airplane reference origin of coordinates is a point located 540 inches forward of the center section wing front spar centerline, at buttock line zero, (i.e., aircraft fore/aft centerline as viewed in plane view) and at water line zero. (737-100 Series) All production body stations coincide numerically with moment arms. Horizontal distance of datum to nose gear jack point is 286 inches for the 737-100 Series, 250 inches for the 737-200 Series, and 207.7 inches for the 737-300 Series, 135.7 inches for the 737-400 Series, 261.7 inches for the 737-500 Series.

MAC: 134.5 inches (L.E. of MAC is 625.59 inches aft of the aircraft datum).

Other Operating

Limitations: See FAA Approved Airplane Flight Manual Appendices listed In NOTE 2. See NOTE 12.

Control Surface

Movements: To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes must, therefore, be rigged according to the following FAA Approved data: Boeing Drawings No.

65-45101	Control Installation, Aileron Spoiler
65-45102	Control Installation, Elevator
65-45103	Control Installation, Rudder
65-45104	Control Installation, Stabilizer Trim
65-45105	Control Installation, Aileron Trim
65-45106	Control Installation, Rudder Trim
65-45116	Control Installation, Speed Brake

**Data Pertinent to all Models except 737-700, -800, -600 & -700C) (Cont'd)**

Certification Basis: Type Certification Basis, (737-100 & 737-200 Series Airplanes).

FAR 25, Amendments 25-1 through 25-3, 25-7, 25-8, 25-15, FAR 21, FAR 1: and special conditions attached to FAA letter to Boeing dated October 15, 1965, and modified in letters dated December 23, 1966 and February 14, 1967, and Special Condition No. 25-89-NW-5 attached to FAA letter to Boeing dated April 10, 1979.

Exemption from FAR 25 - No. 575 - Exemption from 25.1001 - allow takeoff weight 115% of maximum landing weight, (non-advanced airplanes only. See Note 8.) Equivalency safety findings exist with respect to the following regulations for Boeing 737-100 and 200 airplanes:

FAR 25.811(f) Exterior Exit Marking

FAR 25.1415(d) Emergency Locator Transmitter

Exemption from FAR 25 - No. 2072 - Exemption from 25.1203(a) - allows deletion of fire detector system in the extended nacelle tailpipe section of the engines.

Part 36 of the Federal Aviation Regulations.

Special Federal Aviation Regulation 27.

Type Certification Basis, (737-300 Series Airplanes)

Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-3, 25-7, 25-8, and 25-15, except where superseded by the following sections of Part 25 as amended by Amendments 25-1 through:

25-11 (Section 25.939, 25.977, 25.1141);

25-16 (Section 25.1457);

25-17 (Section 25.813);

25-20 (Section 25.785);

25-23 (Section 25.701, 25.723, 25.729, 25.863, 25.1103, 25.1143, 25.1331, 25.1333, 25.1435);

25-31 (Section 25.1459);

25-32 (Section 25.787, 25.809, 25.811, 25.853, 25.1557);

25-36 (Section 25.1305(a), (c), (d)(1), and (d)(2));

25-40 (Section 25.1585);

25-51 (Section 25.2, 25.101, 25.107, 25.111, 25.113, 25.143,

25.343, \*25.571(a) and (b), 25.571(d), 25.581, 25.629, \*25.671, \*25.672, 25.677, 25.683,

\*25.699, 25.703, 25.735, 25.771, 25.772, 25.773, 25.789, 25.791, 25.803, 25.812, 25.855, 25.865,

25.903, 25.933, 25.934, 25.979, 25.993, 25.994, 25.1001, 25.1019, 25.1041, 25.1043, 25.1093,

25.1183, 25.1203, 25.1303, \*\*25.1305(d)(3), 25.1307, \*25.1309, 25.1325(a) through (f), 25.1326,

25.1351(d), 25.1359, 25.1387, 25.1413, 25.1415, 25.1419, 25.1447, 25.1450, 25.1561, 25.1581,

25.1583, 25.1587; 25-53 (Section 25.1411).

Federal Aviation Regulations (FAR) Part 36 with Amendments 36-1 through 36-12, effective August 1, 1981.

Special Federal Aviation Regulation 27.

\*Applicable only to new or major modified structure or to new systems and components unique to the 737-300 series airplane with respect to the existing Model 737-200 Series airplane. For unmodified areas of Power Operated Control Systems, the original amendment level of FAR 25.695 remains in effect.

**Data Pertinent to all Models except 737-700, -800, -600 & -700C: (Cont'd)**

\*\*Compliance with 25.1305(d)(3) has been mandated by the FAA in accordance with the provisions of FAR 21.101(b). Equivalency safety findings exist with respect to the following regulations: For 737-300 only:

FAR 25.723(a) Shock Absorption Tests  
 FAR 25.791 Passenger Information Signs and Placards  
 FAR 25.803(c)(8) Emergency Evacuation  
 FAR 25.809(f)(1)(ii) Escape Slides  
 FAR 25.853(c) Compartment Interiors  
 FAR 25.811(e)(3) Emergency Handle Illumination  
 FAR 812(b)(1)(i) Emergency Exit Signs  
 FAR 25.1093(b)(1) Induction System  
 Deicing and Anti-Icing provisions.  
 FAR 25.811(f) Exterior Exit Markings  
 FAR 25.1415(d) Emergency Locator Transmitter (ELT)

Type Certification Basis, (737-400 and 737-500 Series Airplanes)

Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-3, 25-7, 25-8, and 25-15, except where superseded by the following sections of Part 25 as amended by Amendments 25-1 through:

25-11 (Section 25.939, 25.977, 25.1141);  
 25-16 (Section 25.1457);  
 25-17 (Section 25.813);  
 25-20 (Section 25.785);  
 25-23 (Section 25.701, 25.723, 25.729, 25.863, 25.1103, 25.1143, 25.1331, 25.1333, 25.1435);  
 25-31 (Section 25.1459);  
 25-32 (Section 25.787, 25.809, 25.811, 25.853, 25.1557);  
 25-33 (Section 25.772);  
 25-36 (Section 25.1305(a), (c), (d)(1), and (d)(2));  
 25-40 (Section 25.1585);  
 25-51 (Section 25.2, 25.101, 25.107, 25.111, 25.113, 25.143, 25.145, 25.147, 25.149, 25.177, 25.181, 25.201, 25.207, 25.233, 25.237, 25.253, 25.255, \*25.305, 25.343, \*25.571(a) and (b), 25.571(d), 25.581, 25.629, \*25.671, \*25.672, 25.677, 25.683, \*25.699, 25.703, 25.735, 25.771, 25.773, 25.789, 25.791, 25.803, 25.812, 25.855, 25.865, 25.903, 25.933, 25.934, 25.979, 25.993, 25.994, 25.1001, 25.1019, 25.1041, 25.1093, 25.1183, 25.1203, 25.1303, \*25.1305(d)(3), 25.1307, \*25.1309, 25.1325(a) through (f), 25.1326, 25.1351(d), 25.1359, 25.1387, 25.1413, 25.1415, 25.1419, 25.1447, 25.1450, 25.1561, 25.1581, 25.1583, 25.1587); 25.53 (Section 25.1411).

Federal Aviation Regulations (FAR) Part 36 with Amendments 36-1 through 36-15, effective May 6, 1988.

Special Federal Aviation Regulation 27.

\*Applicable only to new or major modified structure or to new systems and components unique to the 737-400, and 737-500 series airplane with respect to the existing Model 737-200 Series airplane.

For unmodified areas of Power Operated Control Systems, the original amendment level of FAR 25.695 remains in effect.

\*\*Compliance with 25.1305(d)(3) has been mandated by the FAA in accordance with the provisions of FAR 21.101(b).

Equivalent safety findings exist with respect to the following regulations: For 737-100/-200/-200C/-300/-400/-500:

FAR 25.1415(d) Emergency Locator Transmitter

**Data Pertinent to all Models except 737-700, -800, -600 & -700C : (Cont'd)**

Equivalency safety findings exist with respect to the following regulations: For 737-400 and 737-500 only:

FAR 1.2 Abbreviations and symbols  
 FAR 25.21 Proof of compliance  
 FAR 25.103 Stalling Speed  
 FAR 25.107 Takeoff Speeds  
 FAR 25.119 Landing Climb: All-engine- operating  
 FAR 25.121 Climb - One engine-operative  
 FAR 25.125 Landing  
 FAR 25.145 Longitudinal Control  
 FAR 25.147 Directional and lateral control  
 FAR 25.149 Minimum Control Speed  
 FAR 25.161 Trim  
 FAR 25.175 Demonstration of static longitudinal stability  
 FAR 25.177 Static directional and lateral stability  
 FAR 25.201 Stall demonstration  
 FAR 25.207 Stall Warning  
 FAR 25.723(a) Shock Absorption Tests  
 FAR 25.735 Brakes  
 FAR 25.773 Pilot compartment view  
 FAR 25.803(c)(8) Emergency evacuation  
 FAR 25.809(f)(1)(ii) Escape slides  
 FAR 25.811(e)(3) Emergency handle illumination  
 FAR 25.811(f) Exterior Exit Markings  
 FAR 25.812(b)(1)(i) Emergency exit signs  
 FAR 25.1323 Airspeed indicating system  
 FAR 25.1325 Static pressure systems  
 FAR 25.1415(d) Emergency Locator Transmitter (ELT)  
 FAR 36 Appendix C Use of the 1g Stall Speed instead of minimum speed in the stall as a basis for determining compliance.

Compliance with the following optional requirements has been established for all Models:

Ditching Provisions	25.801	(Overwater operation can be approved when the aircraft has been equipped and has been approved according to FAR 25.801. The 56-person life raft is not approved for use on 737-100/200/300/400 airplanes due to ditching evacuation capability).
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Ice Protection Provisions	25.1419
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Production Basis: Production Certificate No. 700

Required Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

Service Information: Boeing Document D6-15565 (For 737-100/200), D6-37635 (For 737-300), D6-38246 (For 737-400), D6-38441 (For 737-500), "Structural Repair Manual" is FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

**NOTES FOR SECTIONS I THRU VI:**

NOTE 1. Current Weight and Balance Control and Loading Manual, including list of equipment, (D6-15066 Airplane Report), included in certificated weight empty and loading instructions must be in each aircraft at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system.

**NOTES FOR SECTIONS I THRU VI: (cont'd)**

NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.

Boeing Document No. D6-8737 is the basic FAA Approved Airplane Flight Manual for Models 737-100/200 airplanes.

Boeing Document No. D6-8730 is the basic FAA Approved Airplane Flight Manual for Model 737-300 airplanes.

Boeing Document No. D6-8734 is the basic FAA Approved Airplane Flight Manual for Model 737-400 airplanes.

Boeing Document No. D6-8735 is the basic FAA approved Airplane Flight Manual for Model 737-500 airplanes.

NOTE 3. The retirement times of fatigue critical parts are listed in the following table. FAA engineering approval is required to increase these values of retirement time. These service lives may be converted to flight hours based on service route segments average time and must be approved by the FAA.

**LIFE LIMITS FOR MODEL 737 MAIN/NOSE LANDING GEARS (3)**

SERIES	WEIGHT RANGE (KIPS)		LIFE LIMIT (FLIGHTS)	
	TAXI	LANDING	MAIN	NOSE
-100 -200 BGW	95 - 111.2	89.7 - 103	81,000 (1)	81,000
-200 HGWA -200HGWA -200HGWB	114 - 128.6	103-107	100,000 (1) (2)	90,000
-300	136.5 - 139	114	75,000	
-400	143	121	75,000	
-500	134-139	110	75,000	

- (1) Trunnion pins 65-46113-3 and -5 are to be replaced at 76,000 flights.
- (2) Forward trunnion fuse bolts 65-42196-4, -5 and 69-58854-2, used on 737-100 and 737-200 series airplanes are to be replaced at 83,000 flights.
- (3) For Detail Components Lives see Boeing Service Letter 737-SL-32-21.

NOTE 4. (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types.

- (b) Phillips anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed.

NOTE 5. Models designation of the 737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 Series airplanes are shown by the "Dash No." of the prefix "737," i.e. 737-105; the "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.

NOTE 6. Weight and Balance Control and Loading Manual. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D6-15066) consists of the Basic Manual and a Supplement Aircraft Report.

**Notes (Cont'd.)**

- NOTE 7. The Boeing 737 Supplemental Structural Inspection Document D6-37089 (See Ad 84-21-06, Amendment 39-4933) will be revised to include the 737-300, 737-400, and 737-500 at a time to be determined by FAA engineering.
- NOTE 8. All Model 737-200 series airplanes having serial numbers 20492 and on, are of the -200 advanced series airplane. All earlier airplanes can be kit modified to the advanced configuration.
- NOTE 9. The "Advanced" configuration (for aircraft with serial numbers before 20492) consists of the following performance modification kits to be operator installed in the following order, if desired:
- (a) A stopping package, MC 3452, (S.B. 32-1051) plus a high lift package (MC-3400).
  - (b) The above (a) plus JT8D-15 engine (MC-3510).
- NOTE 10. Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- NOTE 11. JT8D-15 engines equipped with MOD 10 exhaust mixer (Pratt & Whitney Aircraft Part No. 5004027) have same engine limits as JT8D-15 engines with splitter type exhaust system.
- NOTE 12. Reference Boeing Document D6-37349 for approved autoland equipment limitations for Model 737-200 series airplanes.
- NOTE 13. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to insure compliance, if the non FAA-approved service bulletins modifications have been installed.
- NOTE 14. Airplanes line numbers 1591, 1593, 1595, and on, were manufactured on or after August 20, 1988, and airplane line numbers 1718, 1903, 1907, and on, were manufactured on or after August 20, 1990. Reference FAR 121.312(a)(1) and (2) Amendment 121-198. Airplanes 1718, 1907 through 1927 are exempt (Exemption No. 5176A). See Service Bulletin Index Part 3 for cross reference of line number to airplane serial number.
- NOTE 15. The type design reliability and performance of the Model 737-200, -300, -400, and -500 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D6-38091 "CONFIGURATION, MAINTENANCE, AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" for the Model 737-200, and Boeing Document D6-38123 for the Models 737-300, -400, and -500.

**VII. Model 737-700 (Approved November 7, 1997), 737-800 (Approved March 13, 1998) , and 737-600 (Approved August 12, 1998) Transport Aircraft.**

Engines: 2 CFM 56-7B or -7B/2 Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations. The CFM56-7B/2 series have double annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings and are approved for all models except the CFM56-7B-18/2 engine rating.

Fuel: Fuels meeting the following specifications and mixtures thereof are approved for use:

- \* Jet A, Jet A-1 as specified in ASTM-D1655
- \* JP-5 as specified in MIL-T-5624
- \* JP-8 as specified in MIL-T-83133

Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications and having properties meeting the requirements of the above specifications are acceptable for use. Consult Flight Manual for additive use.

**VII. 737-700 (cont'd)**

Engine Ratings:	Model 737-700	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/B1**	24,200	22,800
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B26	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/2*	26,300	25,900, Limited to 22,800 by FMC

Engine Ratings:	Model 737-700 Increased Gross Weight (IGW)		
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B26	26,300	25,900, Limited to 22,800 FMC
	CFM56-7B26/2*	26,300	25,900, Limited to 22,800 FMC
	CFM56-7B26/B1#	26,300	25,900
	CFM56-7B27/B3#	27,300	25,900
	CFM56-7B27/2B1**	27,300	25,900
Please see note 4 at the end of Section VII for limitations which may be applicable to the 737-700 IGW airplanes.			

Engine Ratings:	Model 737-800	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/B1**	24,200	22,800
	CFM57-7B26	26,300	25,900
	CFM56-7B26/2*	26,300	25,900
	CFM56-7B27	27,300	25,900
	CFM56-7B27/2*	27,300	25,900
	CFM56-7B27/B1**	27,300	25,900

Engine Ratings:	Model 737-600	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B18	19,500	18,800
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300

\* Double Annular Combustor

\*\* Special Rating

# Special Maintenance Provisions (BBJ application only)

For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.



**VII. 737-700, -800, -600 (Cont'd.)**

Thrust Settings: The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)

For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2

C. G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2

Maximum Weights: 737-700

Maximum Taxi Weight (MTW)	155,000 lbs.
Maximum Takeoff Weight (MTOW)	154,500 lbs.
Maximum Landing Weight (MLW)	129,200 lbs.
Maximum Zero Fuel Weight (MZFW)	121,700 lbs.

737 700 Increased Gross Weight (IGW)

Please see Note 4 at the end of Section VII for limitations which may be applicable to the 737-700 IGW airplanes

Maximum Taxi Weight (MTW)	171,500 lbs.
Maximum Takeoff Weight (MTOW)	171,000 lbs.
Maximum Landing Weight (MLW)	134,000 lbs.
Maximum Zero Fuel Weight (MZFW)	126,000 lbs.

Maximum Weights: 737-800

Maximum Taxi Weight (MTW)	174,700lbs.
Maximum Takeoff Weight (MTOW)	174,200lbs.
Maximum Landing Weight (MLW)	146,300 lbs.
Maximum Zero Fuel Weight (MZFW)	138,300 lbs.

Maximum Weights: 737-600

Maximum Taxi Weight (MTW)	144,000 lbs.
Maximum Takeoff Weight (MTOW)	143,500 lbs.
Maximum Landing Weight (MLW)	120,500 lbs.
Maximum Zero Fuel Weight (MZFW)	114,000 lbs.

**VII. 737-700, -800, -600 (Cont'd.)**

737-705	28217, 28222, 29089-29096	
737-724	28762-28769, 28779, 28780, 28782-28791, 28796-28800, 28803, 28936-28941, 28944, 28945, 28948- 28950	
737-758	29751, 29960, 29961	
737-783	28314, 28315, 28316, 28317, 30191, 30192	
737-790	29751-29753, 30162-30166, 30343, 30344, 30542, 30543, 30778, 30792-30794	
737-7B6	28982, 28984-28986	
737-7H4	27835-27884, 27886-27891, 29275-29279, 29490, 29491, 29798-29807, 29809-29814, 29816, 29848-29850, 30544, 30587-30592, 30602-30606	
737-7K9	28088-28091	
737-7L9	28004-28010, 28013-28015	
737-7Q8	28209, 28210, 28211, 28212, 28216, 28219, 28223, 28224, 30635	
737-7V3	28607, 30049, 39458, 30459, 30460, 30497	
737-7W0	29912, 29913, 30074, 30075	
737-7X2	28878	
737-71Q	29043-29048	
737-73A	28497-28500	
737-73S	29076-29083	
737-73V	30235-30237	
737-75B	28099, 28100, 28101, 28103-28110	
737-75C	29042, 29084, 29085, 29086, 30512, 30513	
737-76D	30167, 30168	

**VII. 737-700, -800, -600 (Cont'd.)**

<u>Model 737-700</u>	<u>Eligible Serial Numbers:</u>
737-76N	28577, 28580, 28582-28585, 28609, 28613, 28630, 28635, 28640, 28641, 29893, 29904, 29905, 30050, 30051
737-76Q	30271
737-78J	28440
737-78S	30171
737-79K	29190, 29191
737-7AD	28436, 28437
737-7AX	30181-30183
737-7BX	30736-30740

**737-700 Increased Gross Weight (IGW)**

737-7AF	29979, 30200, 30781
737-7AH	29749
737-7AK	29865, 29866
737-7AN	29972
737-7AV	30070
737-7AW	30031
737-7BC	30327-30330, 30572, 30756, 30782, 30791, 30884
737-7BF	30496
737-7BH	29791
737-7BK	30617
737-7BJ	30076
737-7BQ	30547
737-7CG	30751
737-7CJ	30754
737-7CN	30752
737-7CP	30753, 30755
737-7DF	30790
737-7DM	29971
737-7DT	30829
737-7E0	29251
737-7H6	29274
737-7Z5	29268, 29269, 29857
737-72T	29024
737-72U	29273
737-73Q	29102, 30789
737-73T	29054
737-73U	29200
737-74Q	29135, 29136
737-74T	29139
737-74U	29233
737-74V	29272
737-75T	29142
737-75U	28976
737-75V	28579, 28581
737-78S	30169, 30170
737-79T	29317
737-79U	29441
737-7H3	29149
737-7H4	27885, 29808, 29815, 30601
737-7P3	29188
737-7Z5	29858

**VII. 737-700, -800, -600 (Cont'd.)**

<u>Model 737-800</u>	<u>Eligible Serial Numbers:</u>
737-804	28227, 28229, 28231, 30465, 30466
737-809	28236, 28402-28407, 29103-29106, 30173, 30664, 30636
737-823	29503-29542, 30077-30091, 30598, 30599, 30600, 30828
737-824	28770-28773, 28775-28788, 28792-28795, 28801-28809, 28929-28935, 28942, 28943, 28946, 28947, 28951-28958, 30429, 30576-30584, 30610-30613, 30779, 30802
737-832	29619-29625, 30265, 30266, 30345-30350, 30373-30382, 30487, 30536-30541, 30560-30562, 30773, 30775-30776, 30799, 30800, 30835-30837
737-883	28318, 28319, 28321, 28323, 28324, 28390, 30193-30196, 30197, 30467-30470
737-858	29957-29959
737-81Q	29049-29051
737-82R	29329
737-84P	29947, 30474, 30475
737-85F	28821-28829, 30006, 30007, 30567, 30568
737-85F	28830
737-85P	28381-28388, 28535, 28536
737-85R	29036-29041, 30403
737-86J	28068-28073, 29120, 29121, 30062, 30063, 30498-30501, 30876, 30877
737-86N	28574-28578, 28587, 28591, 28592, 28595, 28608, 28610, 28612, 28614, 28615, 28617-28622, 28624- 28626, 28628, 28636, 28638, 28639, 28642, 30230, 30231, 30806
737-86R	30494
737-89L	29876-29880, 30159, 30160
737-8AR	30139
737-8AS	29916-29930
737-8BG	32353-32356
737-8EC	32450
737-8B5	29981-29983
737-8B6	28920, 28981, 28983
737-8D6	30202-30206
737-8F2	29765-29784, 29786-29788
737-8K2	28373-28380, 29131-29134, 29595-29598, 30355-30359, 30389, 30391
737-8K5	27977-27984, 27989-27992, 27985-27988, 28228, 28623, 30413-30417, 30593, 30783, 30882, 30883
737-8Q8	28056, 28177, 28213, 28214, 28215, 28218, 28220, 28221, 28225, 28226, 28230, 28232-28235, 28237, 30039, 30332, 30627, 30628, 30637
737-8S3	29246-29250
737-8X2	29968, 29969
737-8Z0	30071, 30072, 30073
737-8Z9	28178

<u>Model 737-600</u>	<u>Eligible Serial Numbers:</u>
737-683	28288-28313, 28322, 28605, 30190
737-6H3	29496-29502
737-6Z9	30137, 30138

Minimum Crew  
for All Flights: 2 (Pilot and Copilot)

Maximum Passengers:	<u>737-700</u>	<u>737-800</u>	<u>737-600</u>
	149	189	149

Maximum Baggage  
Cargo: See appropriate Weight and Balance Manual, Boeing Document No. D043A570

**VII. 737-700, -800, -600 (Cont'd.)**

Fuel & Oil Capacities:	See appropriate Weight and Balance Manual, Boeing Document No. D043A570
Minimum Required Fuel:	See appropriate FAA Approved Airplane Flight Manual listed in Note 2
Maximum Operating Altitude:	41,000 ft.
Datum:	See appropriate Weight & Balance Manual, Boeing Document No. D043A570
MAC:	155.81 in
Other Operating Limitations:	See FAA Approved Airplane Flight Manual Appendices
Control Surface Movements:	To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data:  Boeing Drawing Numbers: 114A1001, Krueger Flap Instl - Inbd Wing L.E. 251A1001, Rigging Instructions, Lateral & Speedbrake Control 251A2001, Rigging Instructions, Elevator Control System 251A3001, Rigging Instructions, Rudder Control System 251A4001, Rigging Instructions, Stabilizer Trim Control 256A3001, Rigging Instructions - Flap Actuation 256A2284, Flap.Slat Sensor Instl - Leading Edge, Wing

**Certification Basis:**

A. Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-77 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.365	Pressurized Compartment Loads	0
25.561	Emergency Landing Conditions-General	0
25.562	Emergency Landing Dynamic Conditions	64*
25.571	Damage-tolerance and Fatigue Evaluation of Structure	0,77**
25.607	Fasteners	0,77**
25.631	Bird Strike Damage	0,77**
25.699	Lift and Drag Device Indicator	0,77**
25.775	Windshields and Windows	0
25.783(f)	Doors	15,77**
25.807(c)(3)	Emergency Exits	15
25.813	Emergency Exit Access	45,77**
25.832	Cabin Ozone Concentration	0***
25.1141	Power Plant Controls: General	11****
25.1309	Equipment, Systems and Installations	0,77**
25.1419(c)	Ice Protection	23,77**

\* Flight attendant seats will be qualified to Technical Standard Order C127, dated March 30, 1992, or qualification to TSO C127a, and

- Head Injury Criteria data collected and reported by TSO applicant is less than 1000, and
- Femur Injury Criteria data collected and reported by TSO applicant is less than 2250 pounds, and
- Permanent deformation data collected and reported by TSO applicant are in compliance with the requirements of FAA Advisory Circular (AC) 25.562-1A.

**VII. 737-700, -800, -600 (Cont'd.)**

- Passenger and crew seats in the flight deck will comply with § 25.562(a),(b),(c)(1),(2),(3),(4),(7), and (8)). In addition flight deck observer seats will comply with § 25.562((c)(5)). Medical stretchers used to transport non-ambulatory occupants are not required to comply with § 25.562.

\*\* Applicable to new and significantly modified structure and systems and portions of the airplane affected by these changes. Where two amendment levels are shown for the same paragraph, the number without the asterisk (\*) applies to structures, systems and portions of the airplane which are not new or significantly modified. The structure, systems, and components which comply with the later amendment will be identified in Boeing document D010A001, approved by the FAA and JAA, and referenced on the TCDS.

\*\*\* Boeing provides FAA approved data (Document number D6-49779) to 737 operators to enable the operators to show ozone compliance per §121.578 for their specific route structures.

\*\*\*\* Exception applies to Auxiliary Power Unit spar mounted fuel shut off valve only. All other power plant controls were shown to comply with § 25.1141 at amendment 25-77.  
Amendment level "0" is the original published version of Part 25 (February 1, 1965).

In addition, the following regulations, which Boeing has voluntarily complied with, are also part of the certification basis;

<b><u>SECTION NO.</u></b>	<b><u>TITLE</u></b>	<b><u>AT AMDT. 25.-</u></b>
25.733	Use of Inert Gas for Tire Inflation	78
25.811(e)	Emergency Handle Illumination	79
25.1316	Lightning Protection Requirements	80
<b><u>SECTION NO.</u></b>	<b><u>TITLE</u></b>	<b><u>AT AMDT. 25.-</u></b>
25.143(c),(d),(e),(f)	General, Controllability & Maneuverability	84
25.145(b),(c)(1)	Longitudinal Control	84
25.149(f),(h)	Minimum Control Speed	84
25.203(c)	Stall Characteristics	84
25.253(b)	High-Speed Characteristics	84
25.305(d)	Strength and Deformation	86
25.321(c),(d)	Flight Loads - General	86
25.331(a),(d)	Flight Maneuver and Gust Conditions - General	86
25.333(a),(c)	Flight Envelope	86
25.341	Gust Loads	86
25.343(b)	Design Fuel and Oil Loads	86
25.345(a),(c)	High lift Devices	86
25.349	Rolling Conditions	86
25.351	Yawing Conditions	86
25.371	Gyroscopic Loads	86
25.373(a)	Speed Control Devices	86
25.391	Control Surface Loads:general	86
25.427	Unsymmetrical Loads	86
25.519	Jacking and Tie-down Provisions	81
25.571(b)	Damage Tolerance and Fatigue Evaluation of Structure	86 ** (Note **above)
25.1415(d)	Ditching Equipment (ELT)	82
25.1517	Rough Air Speed V <sub>RA</sub>	86

In addition to the airworthiness standards, the type-certification basis for these derivative airplanes includes compliance with the emissions standards of part 34 as amended by any amendments effective at the time of certification and with the noise standards of part 36 as amended by Amendment 36-20 or any subsequent amendment effective at the time of certification.

**737-700, -800, -600 (Cont'd.)**

Special Conditions: Special Conditions were proposed, in accordance with § 21.16. The Special Conditions for the following subjects were issued in Renton, Washington, September 17, 1997. Their effectivity was the same day as issuance:

- High Intensity Radiated Fields
- Limit Engine Torque Loads for Sudden Engine Stoppage

Equivalent Safety Findings: The Equivalent Safety Findings were proposed in accordance with § 21.21 . The following have been identified as equivalent safety findings:

§ 1.1	General Definitions
§ 1.2	Abbreviations and Symbols
§ 25.21	Proof of Compliance
§ 25.101(I)	Performance - General
§ 25.103	Stalling Speed
§ 25.105(c)(1)	Takeoff
§ 25.107	Takeoff Speeds
§ 25.109	Accelerate Stop Distance; NPRM 93-8: Improved Standards for Determining Rejected Take-off and Landing Performance
§ 25.111	Takeoff Path
§25.115(a)	Takeoff Flightpath
§ 25.119	Landing - Climb: All engines operating
§ 25.121	Climb - One engine operative
§ 25.125	Landing
§ 25.143	General - Controllability and Maneuverability
§ 25.145	Longitudinal Control)
§ 25.147	Directional and Lateral Control
§ 25.149	Minimum Control Speed)
§ 25.161	Trim
§ 25.175	Demonstration of Static Longitudinal Stability
§ 25.177	Static Directional and Lateral Stability
§ 25.181	Dynamic Stability
§ 25.201	Stall Demonstration
§ 25.207	Stall Warning
§ 25.231	Longitudinal Stability and Control
§ 25.233	Directional Stability and Control
§ 25.237	Wind Velocities
§ 25.395(a)	Control Systems
§ 25.613	Material Strength Properties and Design Values.
§ 25.735	Brakes
§ 25.773	Pilot Compartment View
§ 25.791(a)	Passenger Information Signs and Placards
§ 25.810 (a)(1)(ii)	Escape Slides
§ 25.811(f)(2)	Exit Band Contrast
§ 25.812(b)(1)(i)	Emergency Exit Signs
§ 25.813(c)(1)	Emergency Exit Access (for Type III Manual Exit)
§ 25.813(c)(1)	Emergency Exit Access (for Type III Automatic Overwing Exit)
§ 25.853(d)	Compartment Interiors
§ 25.933(a)	Reversing Systems
§ 25.979(b)(1)	Pressure Fueling System
§ 25.1001	Fuel Jettison System
§ 25.1323	Airspeed Indication Systems
§ 25.1325	Static Pressure Systems
§ 25.1389(b)(3)	Wing Tip Position Lights
§25.1415(d)	Emergency Locator Transmitter (ELT)
§ 25.1587	Performance Information

**VII. 737-700, -800, -600 (Cont'd.)**

Exemptions: Exemptions granted for previously type-certificated 737 series airplanes do not apply to these derivative models. Exemptions were requested in accordance with § 11.25. Three Exemptions have been requested:

- § 25.1435(b)(1) Hydraulic Systems (Granted May 17, 1995, Exemption No. 6086).
- § 25.562 Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Granted April 12, 1996, Exemption No. 6425).
- § 25.571(e)(1) Damage-Tolerance and Fatigue Evaluation of Structure - related to Bird Strike Velocity. (Granted April 8, 1997, Exemption No. 6601).

B. Joint Aviation Authorities (JAA) Certification Basis: For Models 737-600, 737-700 and 737-800, please see Boeing 737 JAA Data Sheet No. JAA/25/97-018.

**Certification Maintenance**

**Requirements (CMR's)** The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force. All 737-600/700/700IGW/800 airplanes with line numbers 715 and on must comply with the damage tolerance structural inspections contained in revision June 2000 or later FAA-approved revision.

**Production**

**Basis:** Production Certificate No. 700

**Required**

**Equipment:** The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

**Service**

**Information:** The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect.  
 D634A201 for the 737-700  
 D634A210 for the 737-800  
 D634A220 for the 737-600  
 D634A330 for the 737-700 IGW

**C.G. Range:** See the appropriate FAA Approved Airplane Flight Manual listed.

**NOTES FOR SECTION VII:**

- NOTE 1. The following Serial Numbers were produced under Type Certificate Only:  
**Model 737-700:** 27841, 27842, 27843, 27835, 28100, 27836, 28004, 28005, 27837, 28209, 27838, 28100, 28101, 28102, 28088, 27839, 28210, 28103, 28840, 28089, 28006, 28107, 28108, 28099.  
**Model 737-800:** 27977, 27978, 27979, 27980, 27981, 27982, 28068, 28069, 28213, 28373.  
**Model 737-600:** 28288 thru 28293, 28296, 28297
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-600/-700/-800 airplanes.
- NOTE 3. Required structural inspections for compliance with FAR 25.571 and the retirement times for safe-life parts are listed in the FAA Approved Airworthiness Limitations and Certification Maintenance Requirements Section 9 of Boeing 737-600/700/800 Maintenance Planning Document D626A001-CMR. All 737-600/700/700IGW/800 airplanes with line numbers 715 and on must comply with the Damage Tolerance Structural Inspections contained in revision June 2000 or later FAA-approved revision

**NOTES FOR SECTION VII (cont'd):**

- NOTE 4. Model 737-700 Increased Gross Weight (IGW):  
 The following exemptions have been granted when the airplane is not operated for hire, or for common carriage (Granted October 5, 1998, Exemption No. 6820):  
 §25.785(h)(2) Flight Attendant Seat Locations which do not Provide for Direct View of the Cabin,  
 §25.813(e) Installation of Interior Doors in between passenger compartments,  
 §25.853(d) Interior materials that do not comply with Heat Release and Smoke Emissions Requirements.  
 (Granted February 17, 1999, Exemption No. 6820A); -  
 §25.807(d)(7) Distance Between Exits.  
 §25.813(e) Installation of Interior Doors in between passenger compartments  
 §25.853(d) Interior materials that do not comply with Heat Release and Smoke Emissions Requirements.
- Acceptable engine model installed on a 737-700 IGW is dependent on type of intended in-service use. See the individual Airplane Flight Manual for approved installation of either the CFM56-7B26 or CFM56-7B26/B1 or CFM56-7B27/B3..
- NOTE 5. The type design reliability and performance of the Model 737-600, -700, and -800 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-800 ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES". This finding does not constitute approval to conduct ETOPS operations.

**VIII. Model 737-700C (Approved August 31, 2000) Transport Aircraft.**

Engines: 2 CFM 56-7B or -7B/2 Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations. The CFM56-7B/2 series have double annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings and are approved for all models except the CFM56-7B-18/2 engine rating.

Fuel: Fuels meeting the following specifications and mixtures thereof are approved for use:

- \* Jet A, Jet A-1 as specified in ASTM-D1655
- \* JP-5 as specified in MIL-T-5624
- \* JP-8 as specified in MIL-T-83133

Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications and having properties meeting the requirements of the above specifications are acceptable for use. Consult Flight Manual for additive use.

Engine Ratings:	Model 737-700C	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B24	24,200	22,800

For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.

Thrust Settings: The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)

For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 1



**VIII. Model 737-700C (cont'd):**

C. G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 1

Maximum Weights: 737-700C  
 Please see Note 4 at the end of Section VII for limitations which may be applicable to the 737-700 IGW airplanes

Maximum Taxi Weight (MTW)	171,500 lbs.
Maximum Takeoff Weight (MTOW)	171,000 lbs.
Maximum Landing Weight (MLW)	134,000 lbs.
Maximum Zero Fuel Weight (MZFW)	126,000 lbs.

**Model 737-700C**      **Eligible Serial Numbers:**

737-7AF      29980

Minimum Crew  
for All Flights: 2 (Pilot and Copilot)

Maximum Passengers:	<u>Passenger only mode</u>	<u>Cargo only mode</u>
	149	0

Maximum Baggage  
Cargo: See appropriate Weight and Balance Manual, Boeing Document No. D043A570

Fuel & Oil  
Capacities: See appropriate Weight and Balance Manual, Boeing Document No. D043A570

Minimum Required  
Fuel: See appropriate FAA Approved Airplane Flight Manual listed in Note 1

Maximum Operating  
Altitude: 41,000 ft.

Datum: See appropriate Weight & Balance Manual, Boeing Document No. D043A570

MAC: 155.81 in

Other Operating  
Limitations: See FAA Approved Airplane Flight Manual Appendices

Control Surface  
Movements: To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data:

Boeing Drawing Numbers:  
 114A1001, Krueger Flap Instl - Inbd Wing L.E.  
 251A1001, Rigging Instructions, Lateral & Speedbrake Control  
 251A2001, Rigging Instructions, Elevator Control System  
 251A3001, Rigging Instructions, Rudder Control System  
 251A4001, Rigging Instructions, Stabilizer Trim Control  
 256A3001, Rigging Instructions - Flap Actuation  
 256A2284, Flap.Slat Sensor Instl - Leading Edge, Wing

**VIII. Model 737-700C (cont'd):**

## Certification Basis:

A. Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-91 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.445	[Auxiliary Aerodynamic Surfaces]	0
25.562	Emergency Landing Dynamic Conditions	64*
25.607	Fasteners	0,91**
25.631	Bird Strike Damage	0,91**
25.699	Lift and Drag Device Indicator	0,91**
25.783(f)	Doors	15,91**
25.807(c)(3)	Emergency Exits	15
25.807(d)(1)	Emergency Exits	77
25.831(a) & (g)	Ventilation	41
25.832	Cabin Ozone Concentration	0***
25.841(a)	Pressurized Cabins	38
25.853(d)(3)	Compartment Interiors	72
25.904	Automatic Takeoff Thrust Control System (Not complied with –new at 25-82)	
25.1141	Power Plant Controls: General	11****
25.1309	Equipment, Systems and Installations	0,91**
25.1419(c)	Ice Protection	23,91**
25.1447(c)(3)(ii)	Equipment Standards for Oxygen Dispensing Units	41

\* Flight attendant seats will be qualified to Technical Standard Order C127. Passenger and crew seats in the flight deck will comply with § 25.562(a),(b),(c)(1),(2),(3),(4),(7), and (8)). In addition flight deck observer seats will comply with § 25.562(c)(5)).

\*\* Applicable to new and significantly modified structure and systems and portions of the airplane affected by these changes. Where two amendment levels are shown for the same paragraph, the number without the asterisk (\*) applies to structures, systems and portions of the airplane which are not new or significantly modified. The structure, systems, and components which comply with the later amendment will be identified in Boeing document D010A001, approved by the FAA and JAA, and referenced on the TCDS..

\*\*\* Boeing provides FAA approved data (Document number D6-49779) to 737 operators to enable the operators to show ozone compliance per §121.578 for their specific route structures.

\*\*\*\* Exception applies to Auxiliary Power Unit spar mounted fuel shut off valve only. All other power plant controls were shown to comply with §25.1141 at amendment 25-91.

Amendment level “0” is the original published version of Part 25 (February 1, 1965).

In addition, Boeing has volunteered to comply with the following amendment levels later than amendment 25-91.

25.101	92	Performance; General
25.105	82	Takeoff
25.107	94	Takeoff Speeds
25.109	92	Accelerate Stop Distance
25.111	94	Take Off Path
25.113	92	Takeoff Distance and Takeoff Run
25.115	92	Takeoff Flight Path
25.119	94	Landing Climb: All Engines Operating
25.233	94	Ground Directional Stability and Control
25.349	94	Rolling Conditions
25.481	94	Tail-Down Landing Conditions

**VIII. Model 737-700C (cont'd):**

25.571(e)(1)	96	Damage-Tolerance & Fatigue Evaluation of Structure
25.735	92	Brakes
25.807 (except (d))	94	Emergency Exits
25.855	93	Cargo or Baggage Compartments
25.857	93	Cargo Compartment Classification
25.858	93	Cargo or Baggage Compartment Smoke or Fire Detection
25.1533	92	Additional Operating Limitations

## Special Conditions:

- Limit Engine Torque Loads for Sudden Engine Stoppage.
- High Intensity Radiated Fields (HIRF) Protection.

## Equivalent Safety Findings:

§ 25.21(b)	Proof of Compliance
§ 25.103	Stalling Speed
§ 25.107	Takeoff Speeds
§ 25.111(a)	Takeoff Path
§ 25.119(b)	Landing - Climb: All engines operating
§ 25.121	Climb - One engine operative
§ 25.125(a)(2)	Landing
§ 25.143(g)	General - Controllability and Maneuverability
§ 25.145	Longitudinal Control)
§ 25.147	Directional and Lateral Control
§ 25.149	Minimum Control Speed)
§ 25.161	Trim
§ 25.175	Demonstration of Static Longitudinal Stability
§ 25.177	Static Directional and Lateral Stability
§ 25.181	Dynamic Stability
§ 25.201	Stall Demonstration
§ 25.207	Stall Warning
§ 25.231	Longitudinal Stability and Control
§ 25.233	Directional Stability and Control
§ 25.237	Wind Velocities
§ 25.395(a)	Control Systems
§ 25.735	Brakes
§ 25.773	Pilot Compartment View
§ 25.810 (a)(1)(ii)	Escape Slides
§ 25.813(c)(1)(i)	Emergency Exit Access (for Type III Automatic Overwing Exit)
§ 25.813(c)(2)(i)	Emergency Exit Access (for Type III Automatic Overwing Exit)
§ 25.933(a)(1)(ii)	Reversing Systems
§ 25.979(b)(1)	Pressure Fueling System
§ 25.1001	Fuel Jettison System
§ 25.1323	Airspeed Indication Systems
§ 25.1325	Static Pressure Systems
§ 25.1389(b)(3)	Wing Tip Position Lights
§ 25.1587	Performance Information

## Exemptions:

The following Exemption requests will be submitted to the Transport Airplane Directorate for approval.

- § 25.1435(b)(1) Hydraulic Systems (Originally granted May 17, 1995, Exemption No. 6086), will be extended to include the main deck cargo door hydraulic system.
- § 25.562 Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Originally granted April 12, 1996, Exemption No. 6425).

In addition to the airworthiness standards, the type-certification basis for these derivative airplanes includes compliance with the emissions standards of part 34 as amended by any amendments effective at the time of certification and with the noise standards of part 36 as amended by Amendment 36-20 or any subsequent amendment effective at the time of certification.

**VIII. Model 737-700C (cont'd):**

B. Joint Aviation Authorities (JAA) Certification Basis: As of this revision to the TCDS, there is no JAA approval for the Model 737-700C.

Certification Maintenance  
Requirements (CMR's)

The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR, revision June 2000 or later FAA approved revision, or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force.

Production

Basis: Production Certificate No. 700

Required  
Equipment:

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

Service

Information: The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect. D634A201 for the 737-700C

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed.

**NOTES FOR SECTION VIII:**

- NOTE 1. Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-700C airplane.
- NOTE 2. Required structural inspections for compliance with FAR 25.571 and the retirement times for Safe-life parts are listed in the FAA Approved Airworthiness Limitations and Certification Maintenance Requirements Section 9 of Boeing 737-600/700/800 Maintenance Planning Document D626A001-CMR, Revision June 2000 or later FAA-approved revision.
- NOTE 3. The type design reliability and performance of the Model 737-700C, airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-700C/-800 ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES". This finding does not constitute approval to conduct ETOPS operations.

**IX. Model 737-900 (Approved April 17, 2001) Transport Aircraft.**

Engines: 2 CFM 56-7B or -7B/2 Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.

Fuel: Fuels meeting the following specifications and mixtures thereof are approved for use:

- \*Jet A, Jet A-1 as specified in ASTM-D1655
- \* JP-5 as specified in MIL-T-5624
- \* JP-8 as specified in MIL-T-83133

Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications and having properties meeting the requirements of the above specifications are acceptable for use. Consult Flight Manual for additive use.

**VIII. 737-900 (cont'd)**

Oil Consumption: For compliance with FAR 25.1011(b), the approved maximum oil consumption rate for the CFM56-7B engines installed on this model airplane has been established as 0.250 gallons per hour. Operation of the Model 737-900 airplane with engine oil consumption rates higher than this limit is not permitted.

Engine Ratings:	Model 737-900	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb.
	CFM56-7B24	24,200	22,800
	CFM56-7B26	26,300	25,900
	CFM56-7B26/B1	26,300	25,900
	CFM56-7B27	27,300	25,900
	CFM56-7B27/B1	27,300	25,900
	CFM56-7B27/B3	27,300	25,900

For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.

Thrust Settings: The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)

For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

C. G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

Maximum Weights: 737-900  
Please see Note 4 at the end of Section VII for limitations which may be applicable to the 737-900 airplanes

Maximum Taxi Weight (MTW)	174,700 lbs.
Maximum Takeoff Weight (MTOW)	174,200 lbs.
Maximum Landing Weight (MLW)	146,300 lbs.
Maximum Zero Fuel Weight (MZFW)	140,300 lbs.

**Model 737-900**      **Eligible Serial Numbers:**

737-990      30013  
737-924

Minimum Crew  
for All Flights: 2 (Pilot and Copilot)

Maximum  
Passengers: Passenger only mode      189

Maximum Baggage  
Cargo: See appropriate Weight and Balance Manual, Boeing Document No. D043A590

Fuel & Oil  
Capacities: See appropriate Weight and Balance Manual, Boeing Document No. D043A590

Minimum Required  
Fuel: See appropriate FAA Approved Airplane Flight Manual listed in Note 2.

Maximum Operating  
Altitude: 41,000 ft.

Datum: See appropriate Weight & Balance Manual, Boeing Document No. D043A590

**IX. 737-900 (cont'd)**

MAC: 155.81 in

Other Operating  
Limitations: See FAA Approved Airplane Flight Manual Appendices

Control Surface  
Movements: To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data:

Boeing Drawing Numbers:  
114A1001, Krueger Flap Instl - Inbd Wing L.E.  
251A1001, Rigging Instructions, Lateral & Speedbrake Control  
251A2001, Rigging Instructions, Elevator Control System  
251A3001, Rigging Instructions, Rudder Control System  
251A4001, Rigging Instructions, Stabilizer Trim Control  
256A3001, Rigging Instructions - Flap Actuation  
256A2284, Flap.Slat Sensor Instl - Leading Edge, Wing

Certification Basis:

A. Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-91 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.365	Pressurized Compartment Loads	0
25.562	Emergency Landing Dynamic Conditions	64*
25.607	Fasteners	0,91**
25.631	Bird Strike Damage	0,91**
25.699	Lift and Drag Device Indicator	0,91**
25.783(f)	Doors	15,91**
25.807(c)(3)	Emergency Exits	15
25.813	Emergency Exit Access	45,91**
25.831(a) & (g)	Ventilation	41
25.832	Cabin Ozone Concentration	0***
25.841(a)	Pressurized Cabins	38
25.853(d)(3)	Compartment Interiors	72
25.904	[Automatic Takeoff Thrust Control System]	Not complied with (New at 25-82)
25.1141	Power Plant Controls: General	11****
25.1309	Equipment, Systems and Installations	0,91**
25.1419(c)	Ice Protection	23,91**
25.1447(c)(3)(ii)	Equipment Standards for Oxygen Dispensing Units	41

\* Flight attendant seats will be qualified to:

1. Technical Standard Order (TSO) C127, dated March 30, 1992, or
2. TSO C127a, and
  - a) Head Injury Criteria data collected and reported by the TSO applicant is less than 1000 and,
  - b) Femur Injury Criteria data collected and reported by the TSO applicant is less than 2250 pounds, and,
  - c) Permanent deformation data collected and reported by the TSO applicant are in compliance with the requirements of FAA Advisory Circular (AC) 25.562-1A.

Passenger and crew seats in the flight deck will comply with § 25.562(a),(b), ((c)(1),(2),(3),(4),(7), and (8)). In addition flight deck observer seats will comply with § 25.562((c)(5)).

IX. Model 737-900 (cont'd):

\*\* Applicable to new and significantly modified structure and systems and portions of the airplane affected by these changes. Where two amendment levels are shown for the same paragraph, the number without the asterisk (\*) applies to structures, systems and portions of the airplane which are not new or significantly modified. The structure, systems, and components which comply with the later amendment will be identified in Boeing document D010A001, approved by the FAA and JAA, and referenced on the TCDS..

\*\*\* Boeing provides FAA approved data (Document number D6-49779) to 737 operators to enable the operators to show ozone compliance per §121.578 for their specific route structures.

\*\*\*\* Exception applies to Auxiliary Power Unit spar mounted fuel shut off valve only. All other power plant controls were shown to comply with § 25.1141 at amendment 25-91.

Amendment level "0" is the original published version of Part 25 (February 1, 1965).

In addition, Boeing has volunteered to comply with the following amendment levels later than amendment 25-91.

25.101	92	Performance; General
25.105	92	Takeoff
25.107	94	Takeoff Speeds
25.109	92	Accelerate Stop Distance
25.113	92	Takeoff Distance and Takeoff Run
25.115	92	Takeoff Flight Path
25.735	92	Brakes
25.855	93	Cargo or Baggage Compartments
25.857	93	Cargo Compartment Classification
25.858	93	Cargo or Baggage Compartment Smoke or Fire Detection System
25.1533	92	Additional Operating Limitations

Special Conditions:

- Limit Engine Torque Loads for Sudden Engine Stoppage.
- High Intensity Radiated Fields (HIRF) Protection.

Equivalent Safety Findings:

§ 1.2	Abbreviations and Symbols
§ 25.21	Proof of Compliance
§ 25.103	Stalling Speed
§ 25.107	Takeoff Speeds
§ 25.111	Takeoff Path
§ 25.119	Landing - Climb: All engines operating
§ 25.121	Climb - One engine operative
§ 25.125	Landing
§ 25.143	General - Controllability and Maneuverability
§ 25.145	Longitudinal Control
§ 25.147	Directional and Lateral Control
§ 25.149	Minimum Control Speed
§ 25.161	Trim
§ 25.175	Demonstration of Static Longitudinal Stability
§ 25.177	Static Directional and Lateral Stability
§ 25.181	Dynamic Stability
§ 25.201	Stall Demonstration
§ 25.207	Stall Warning
§ 25.231	Longitudinal Stability and Control
§ 25.233	Directional Stability and Control
§ 25.237	Wind Velocities

IX. Model 737-900 (cont'd):

§ 25.395(a)	Control Systems
§ 25.613	Material Strength Properties and Design Values.
§ 25.735	Brakes
§ 25.773	Pilot Compartment View
§ 25.791	Passenger Information Signs and Placards
§ 25.810 (a)(1)(ii)	Escape Slides
§ 25.811(f)	Emergency Exit Markings
§ 25.813(c)(1)	Emergency Exit Access (for Type III Automatic Overwing Exit)
§ 25.813(c)(2)(i)	Emergency Exit Access (for Type III Automatic Overwing Exit)
§ 25.853(f)	Compartment Interiors
§ 25.933(a)	Reversing Systems
§ 25.979(b)(1)	Pressure Fueling System
§ 25.1001	Fuel Jettison System
§ 25.1323	Airspeed Indication Systems
§ 25.1325	Static Pressure Systems
§ 25.1389(b)(3)	Wing Tip Position Lights
§ 25.1587	Performance Information

## Exemptions:

The following Exemption requests will be submitted to the Transport Airplane Directorate for approval.

- § 25.1435(b)(1) Hydraulic Systems (Originally granted May 17, 1995, Exemption No. 6086).
- § 25.562 Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Originally granted April 12, 1996, Exemption No. 6425).
- § 25.571(e)(1) Damage-Tolerance and Fatigue Evaluation of Structure - related to Bird Strike Velocity. (Originally granted April 8, 1997, Exemption No. 6601).

FAR Part 34:

Part 34 of the FAR as amended at the time of certification.

FAR Part 36:

Part 36 of the FAR as amended at the time of certification.

B. Joint Aviation Authorities (JAA) Certification Basis: For Model 737-900 please see Boeing 737 JAA Data Sheet No.JAA/25/97-018.

## Certification Maintenance

Requirements (CMR's)      The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR, revision March 2001 or later FAA approved revision, or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force.

## Production

Basis:      Production Certificate No. 700

## Required

Equipment:      The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

## Service

Information:      The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect. D634A211 for the 737-900.

C.G. Range:      See the appropriate FAA Approved Airplane Flight Manual listed.



NOTES FOR SECTION IX:

- NOTE 1. A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-900 airplane.
- NOTE 3. Required structural inspections for compliance with FAR 25.571 and the retirement times for Safe-life parts are listed in the FAA Approved Airworthiness Limitations and Certification Maintenance Requirements Section 9 of Boeing 737-600/700/800/900 Maintenance Planning Document D626A001-CMR, Revision March 2001 or later FAA-approved revision.
- NOTE 4. The type design reliability and performance of the Model 737-900, airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-700C/-800/-900 ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES". This finding does not constitute approval to conduct ETOPS operations.

.....END.....